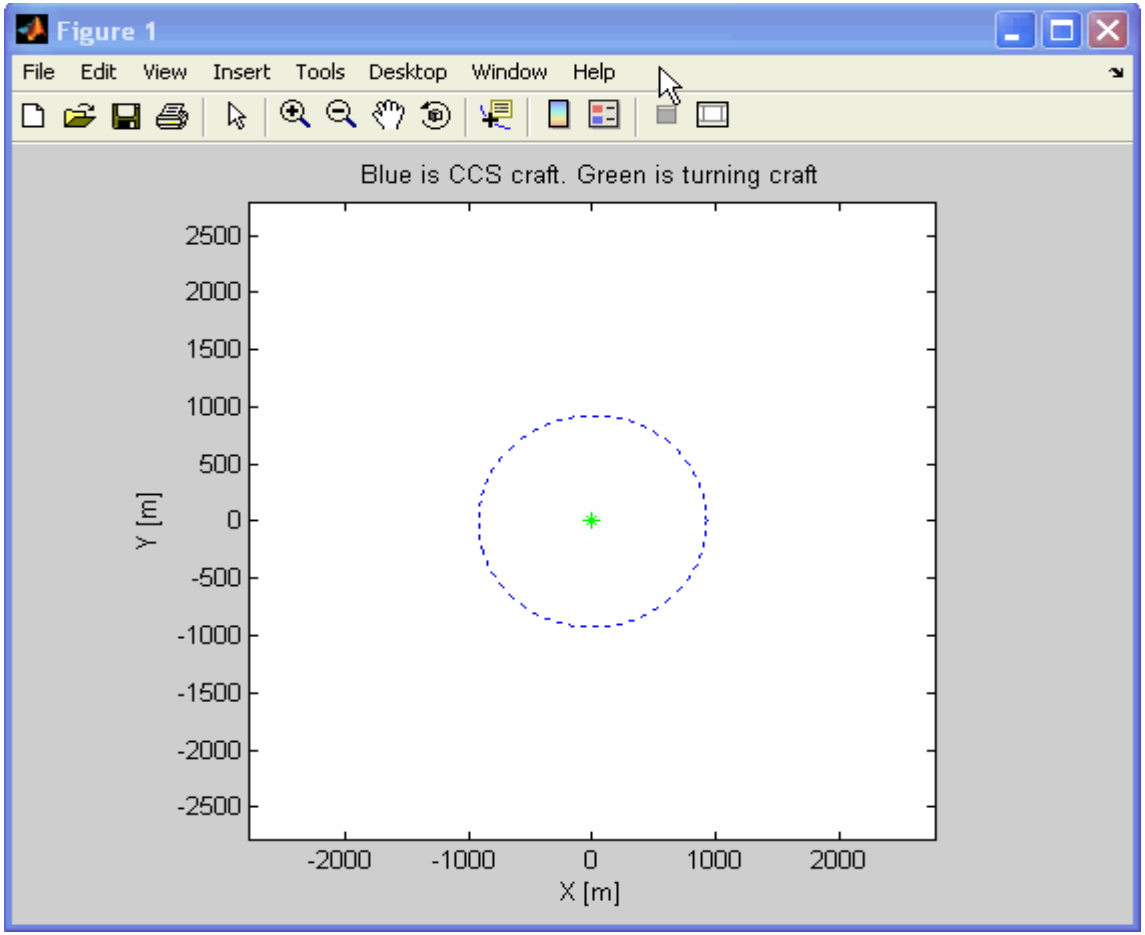
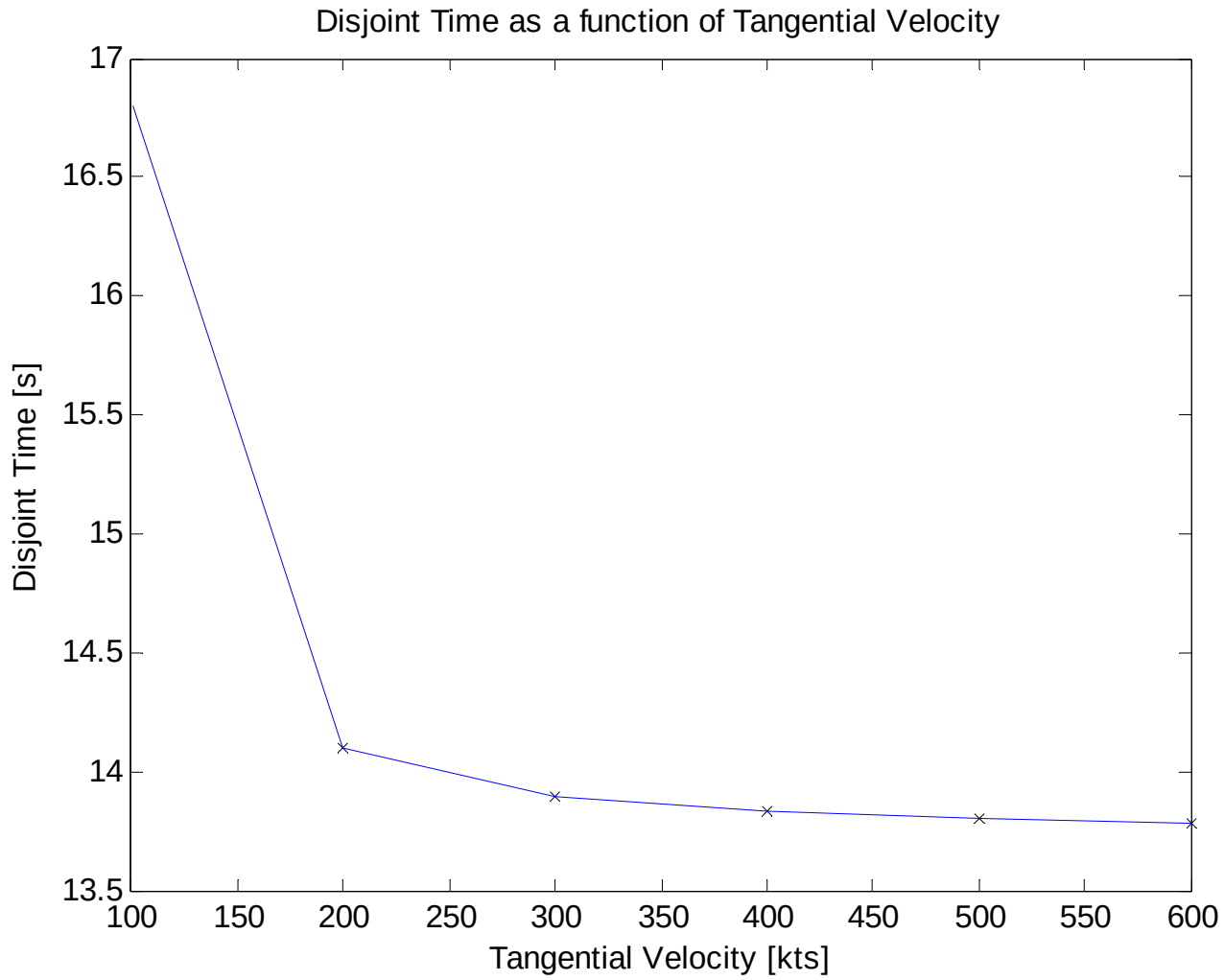
ASSAP Track Coasting

- **How long can an ADS-B based track be coasted?**
  - Minimum NACp required for applications
  - Extrapolated aircraft position may be incorrect due to maneuver
  - Need to determine when to stop trusting coasted track
    - Choose possible stressful maneuver
    - Determine when NACp < $NACp_{min}$

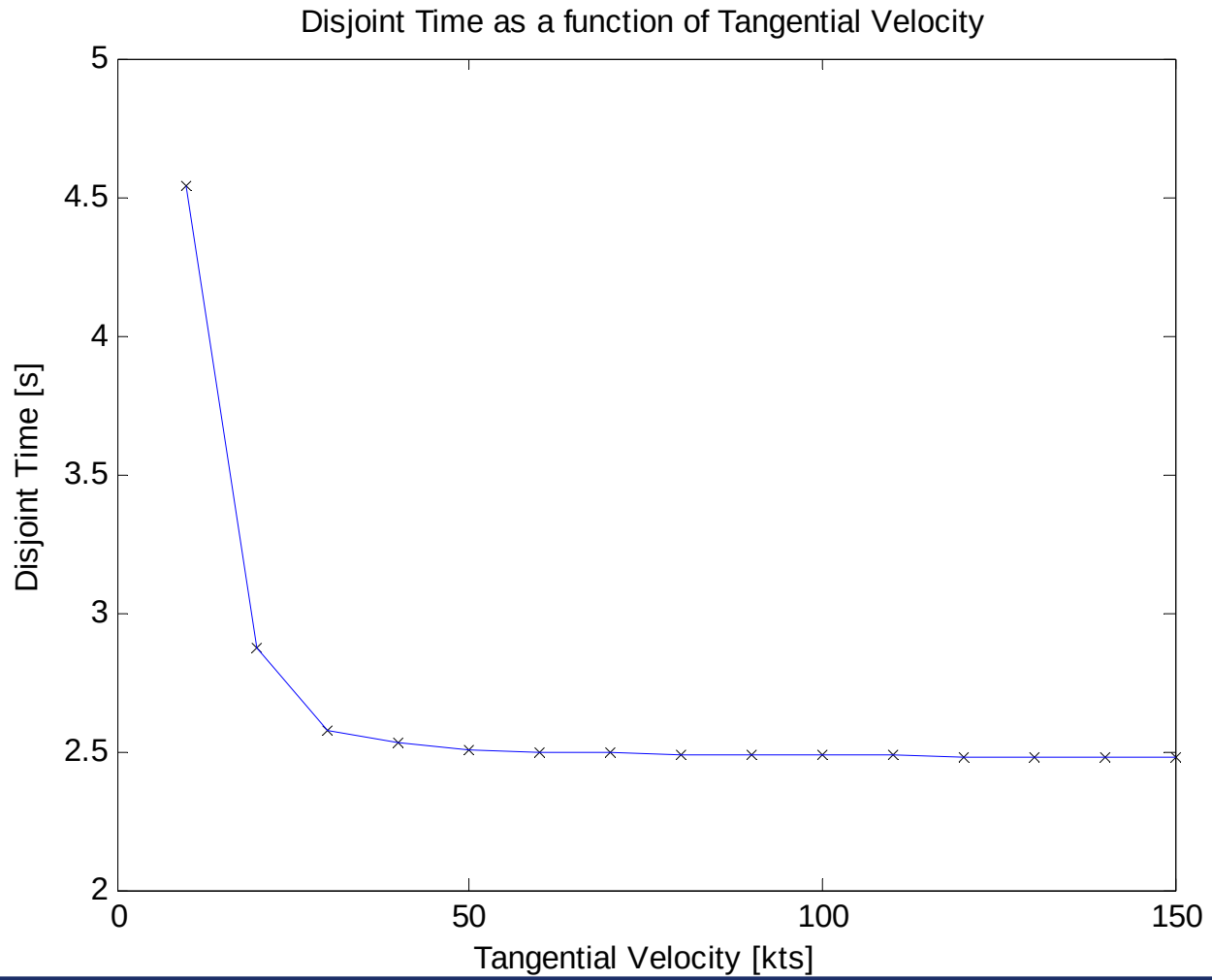
Animation…
NACp=5; aTurn=1g; Vel = 200kts



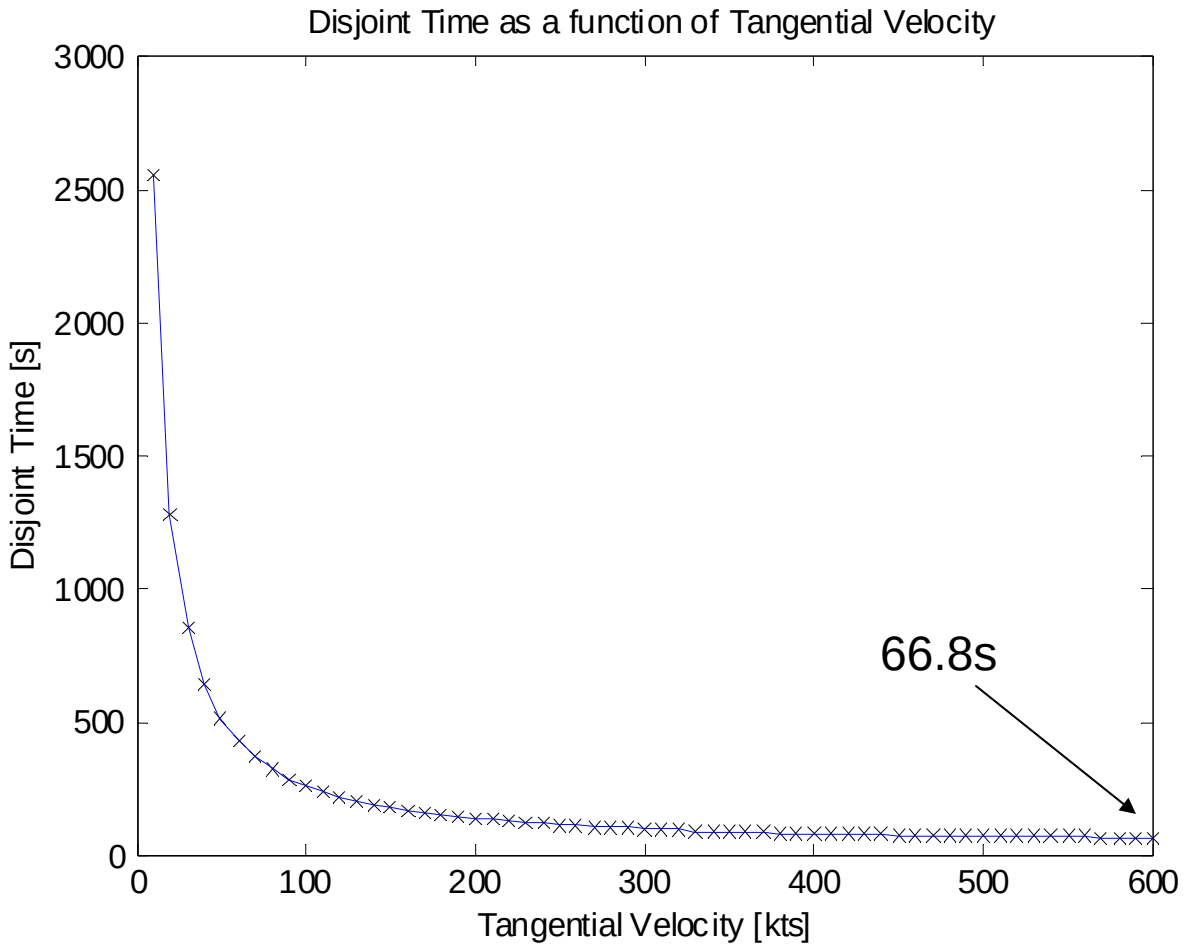
Run #1: NACp =5; aTurn=1g; Vel = 100:600 kts



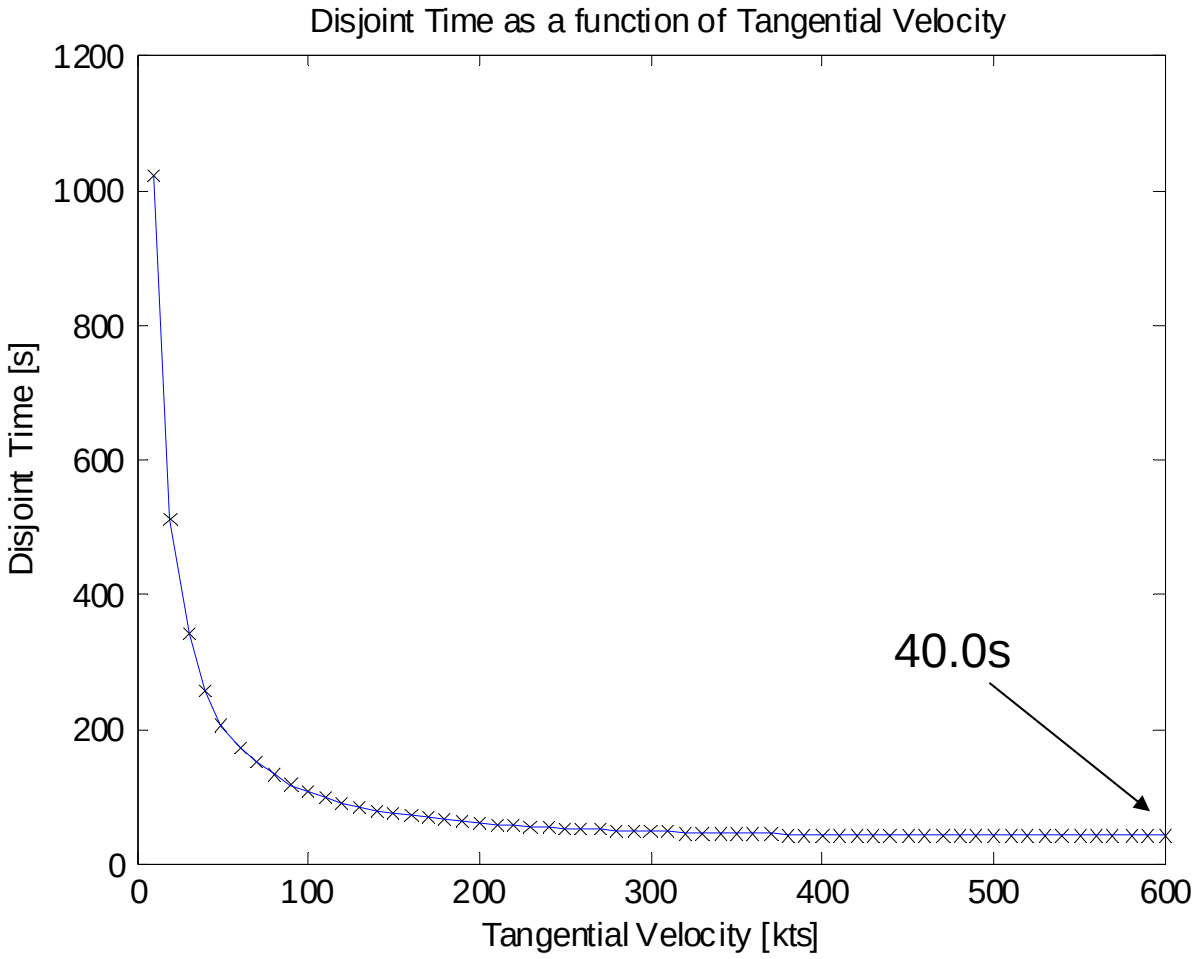
Run #2: NACp =9; aTurn =1g; Vel = 10:150kts



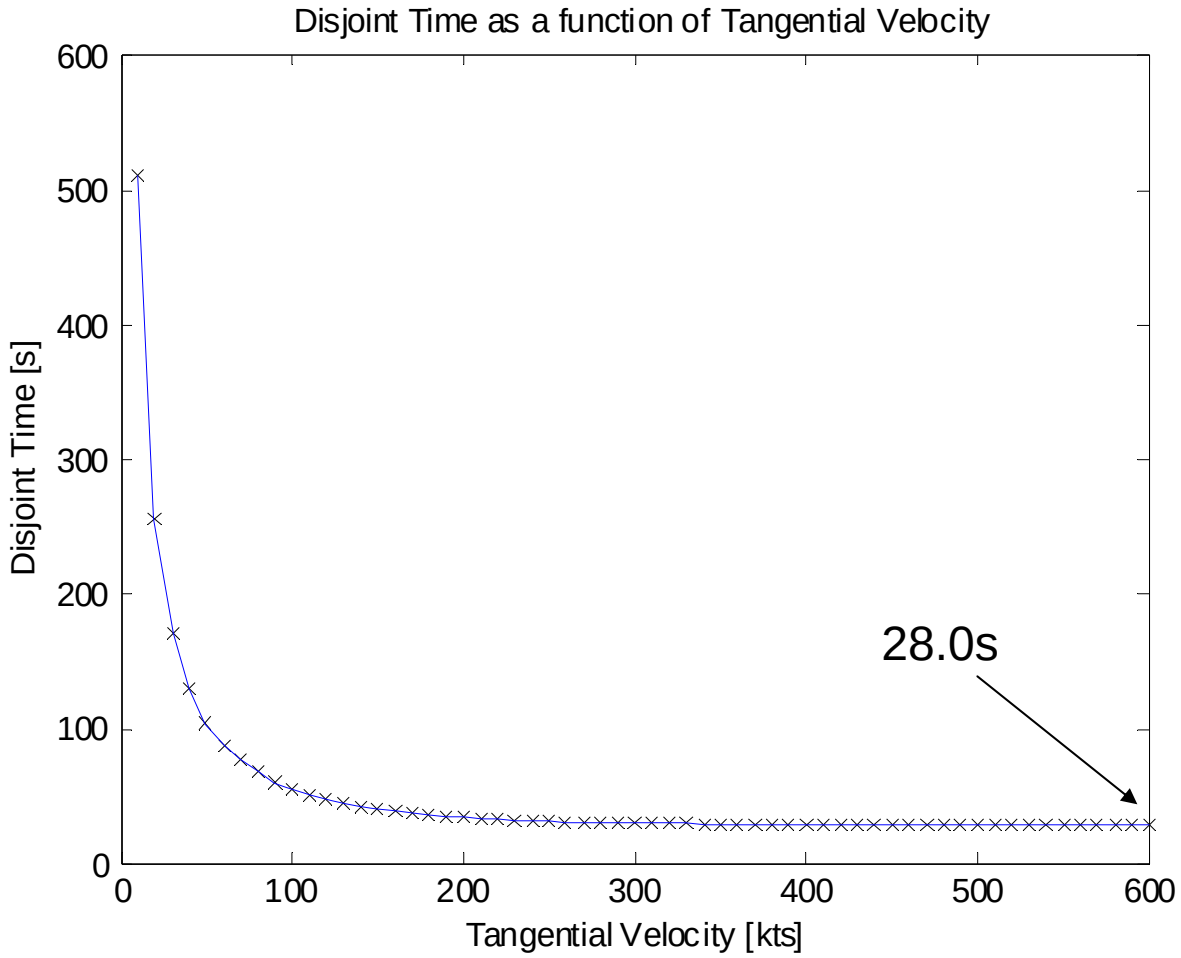
Run #1.1: NACp =1; aTurn =1g; Vel = 10:10:600kts



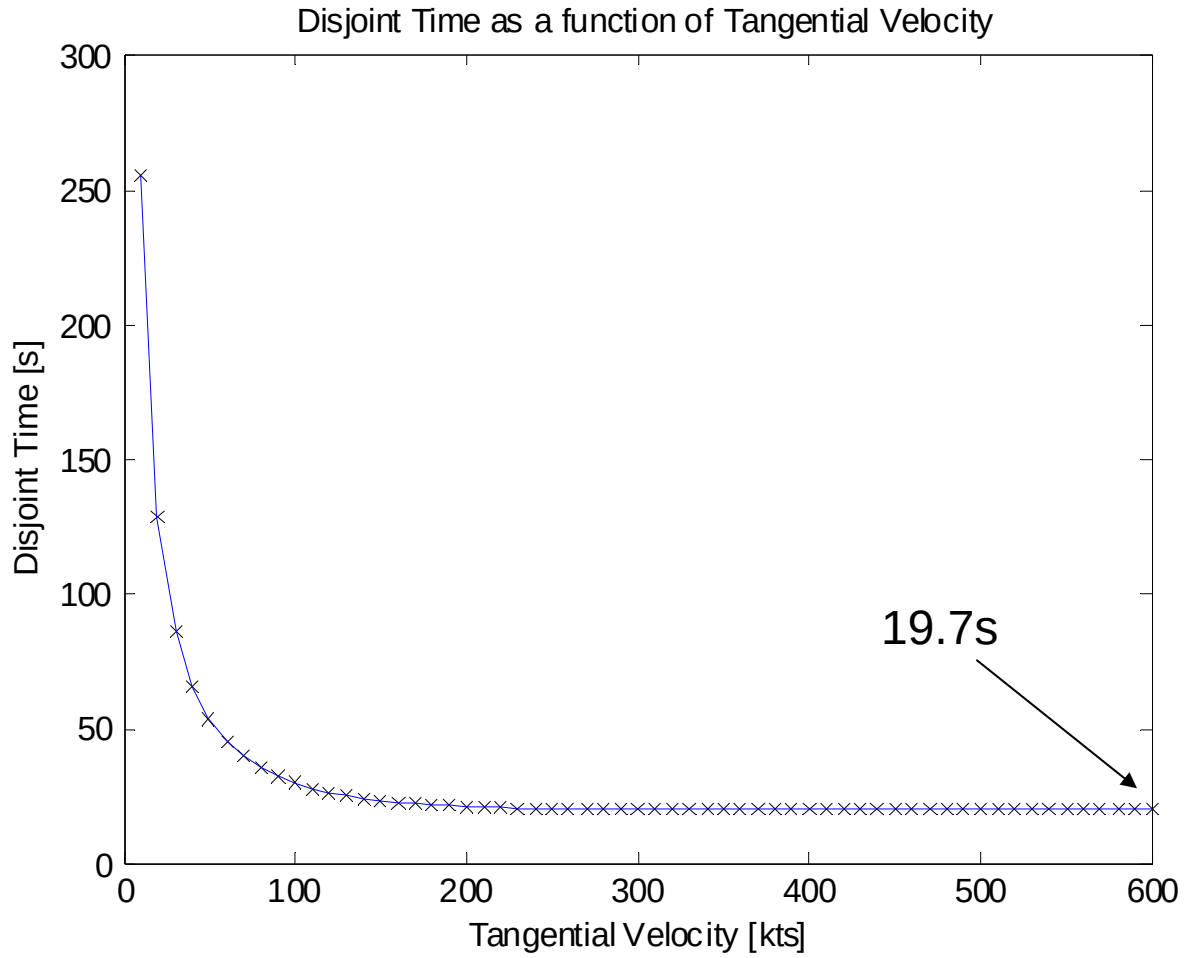
Run #1.2: NACp =2; aTurn =1g; Vel = 10:10:600kts



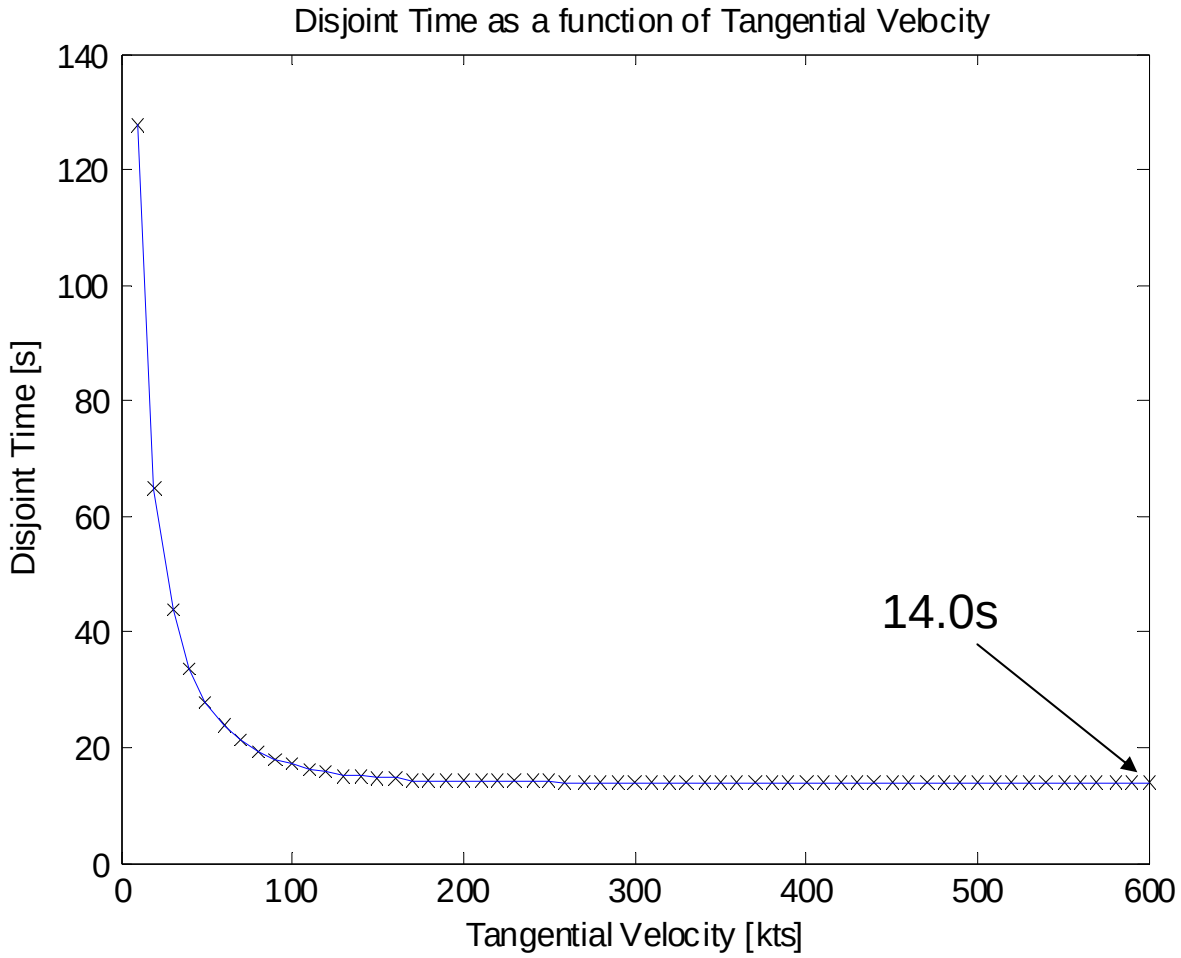
Run #1.1: NACp =3; aTurn =1g; Vel = 10:10:600kts



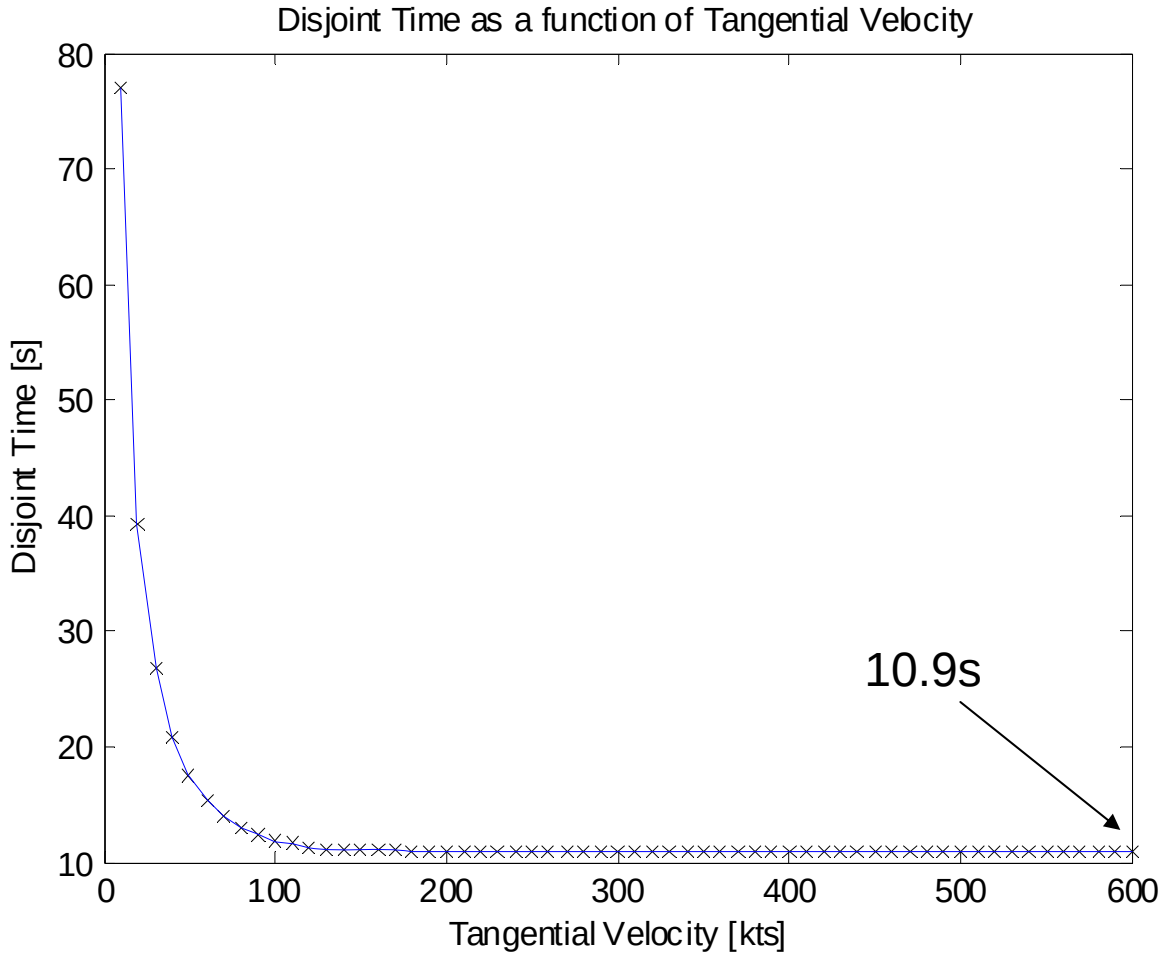
Run #1.1: NACp =4; aTurn =1g; Vel = 10:10:600kts



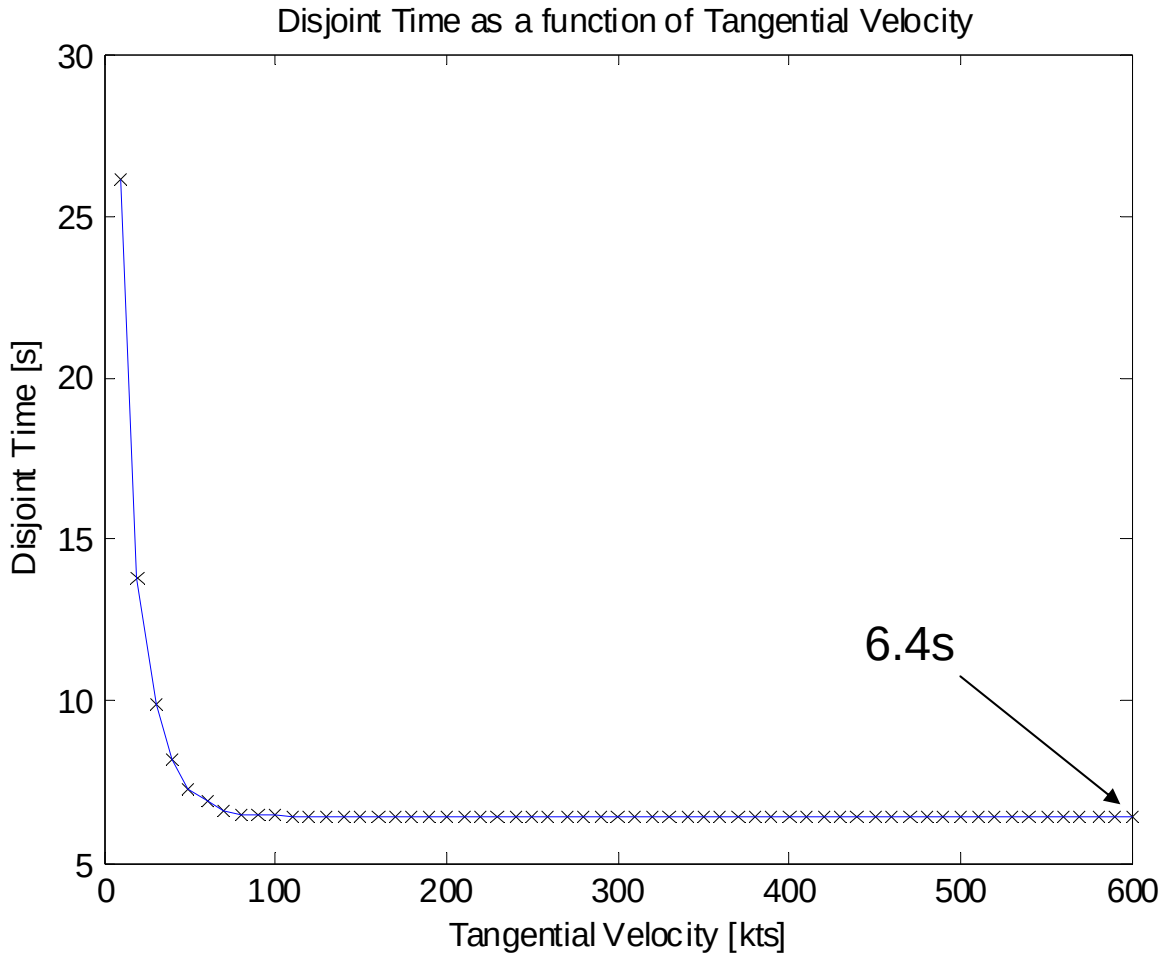
Run #1.1: NACp =5; aTurn =1g; Vel = 10:10:600kts



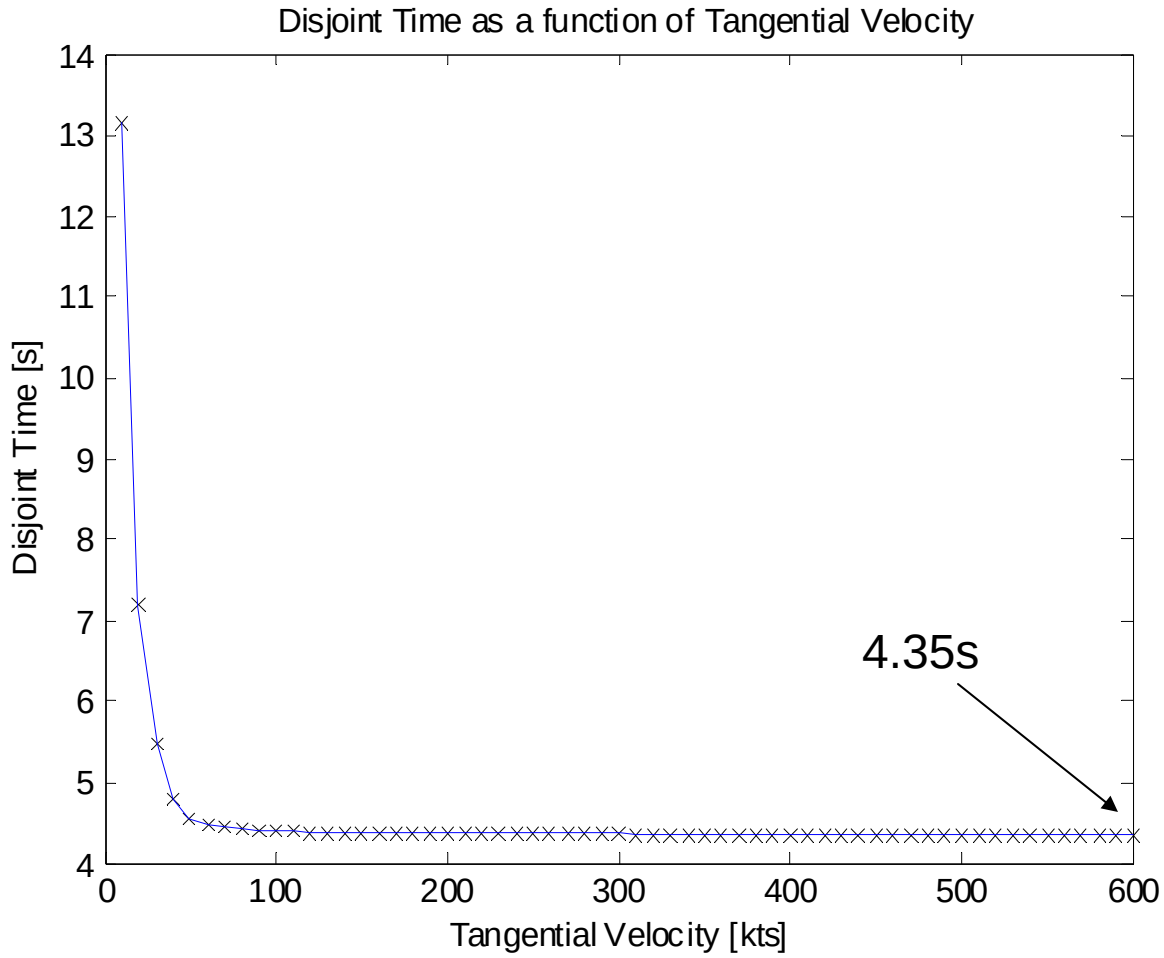
Run #1.1: NACp =6; aTurn =1g; Vel = 10:10:600kts



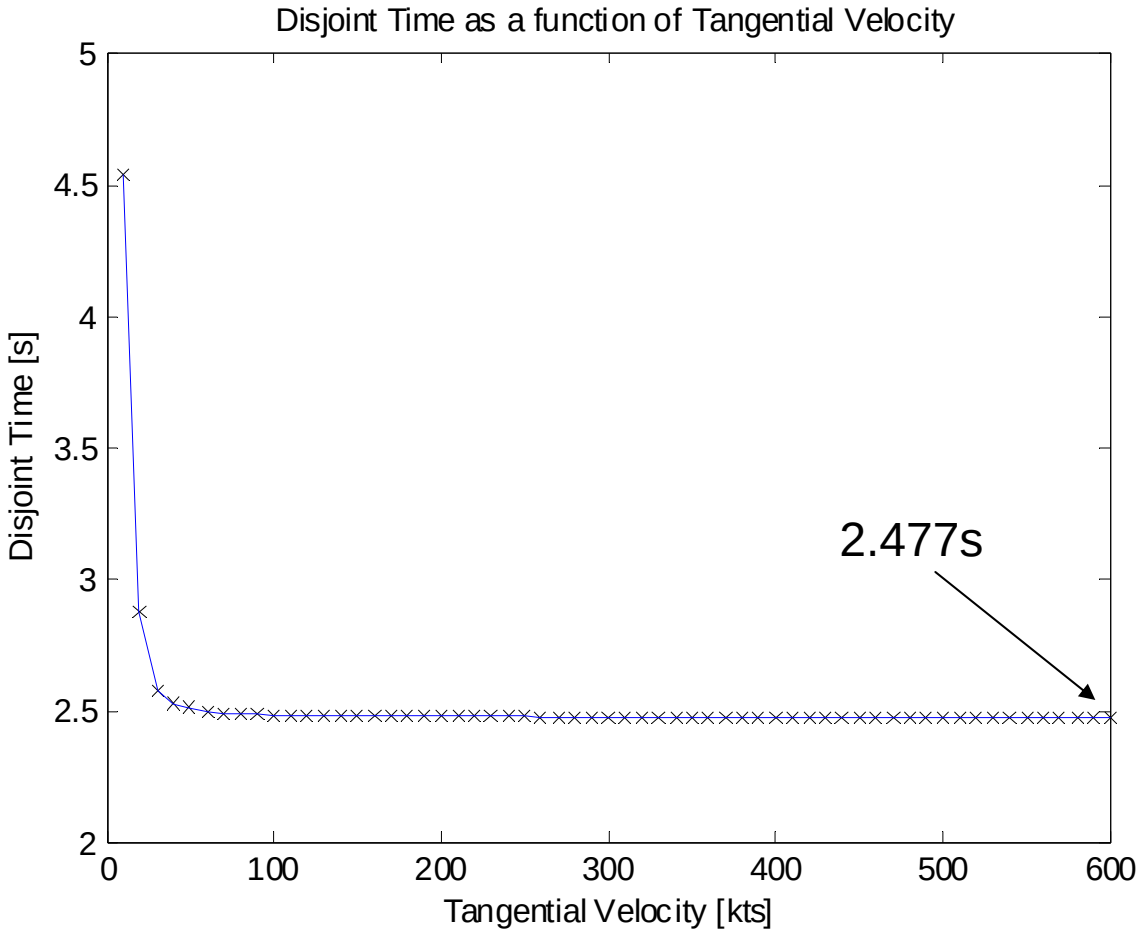
Run #1.1: NACp =7; aTurn =1g; Vel = 10:10:600kts



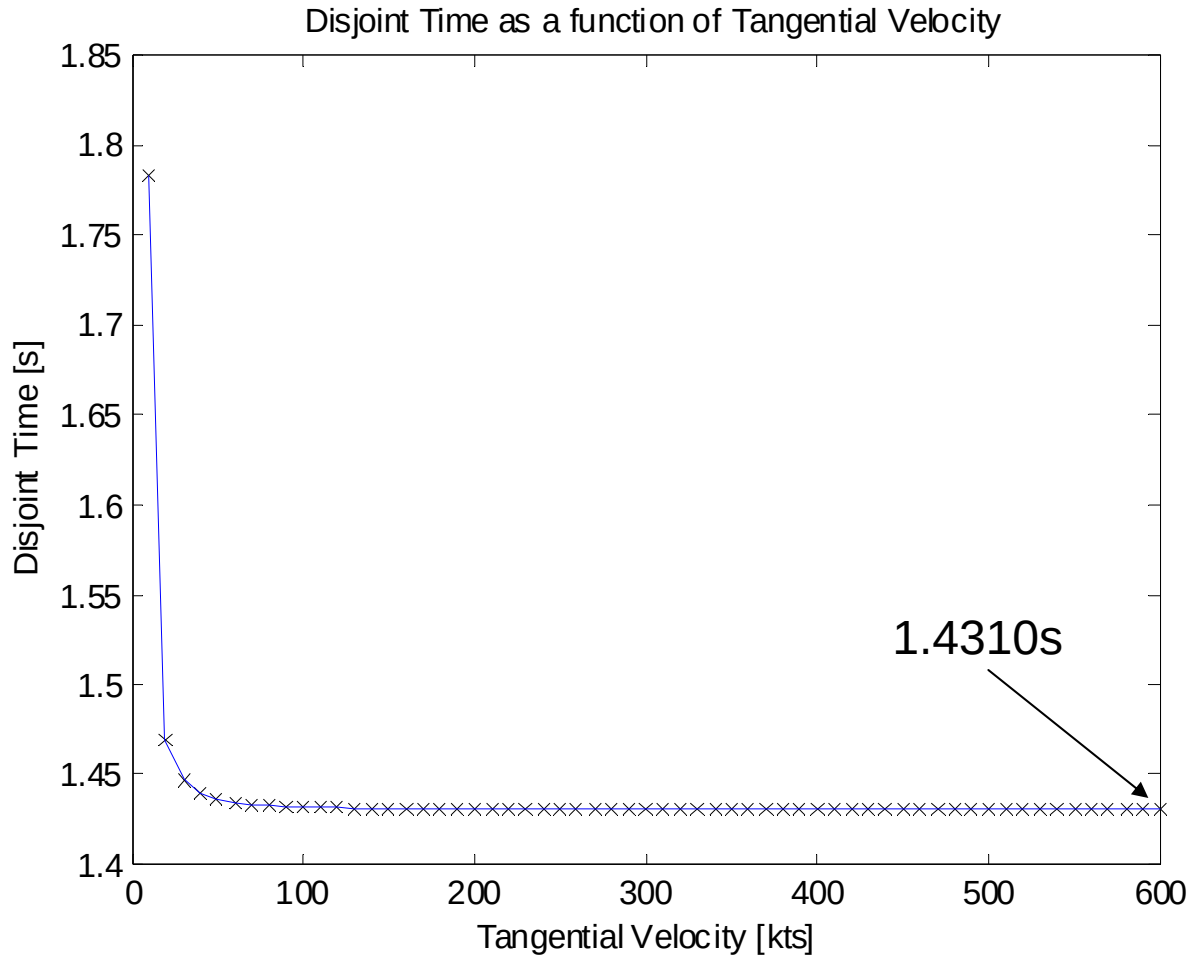
Run #1.1: NACp =8; aTurn =1g; Vel = 10:10:600kts



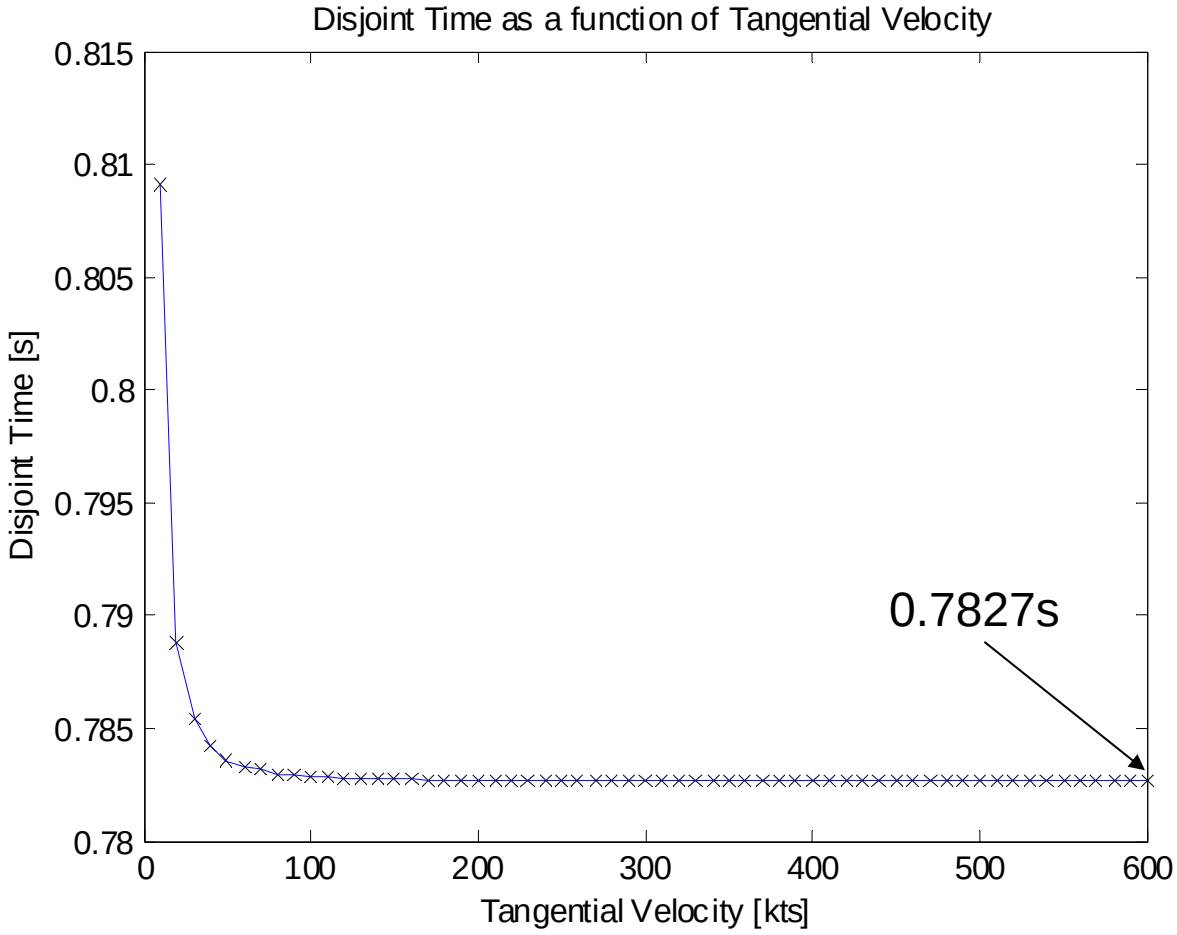
Run #1.1: NACp =9; aTurn =1g; Vel = 10:10:600kts



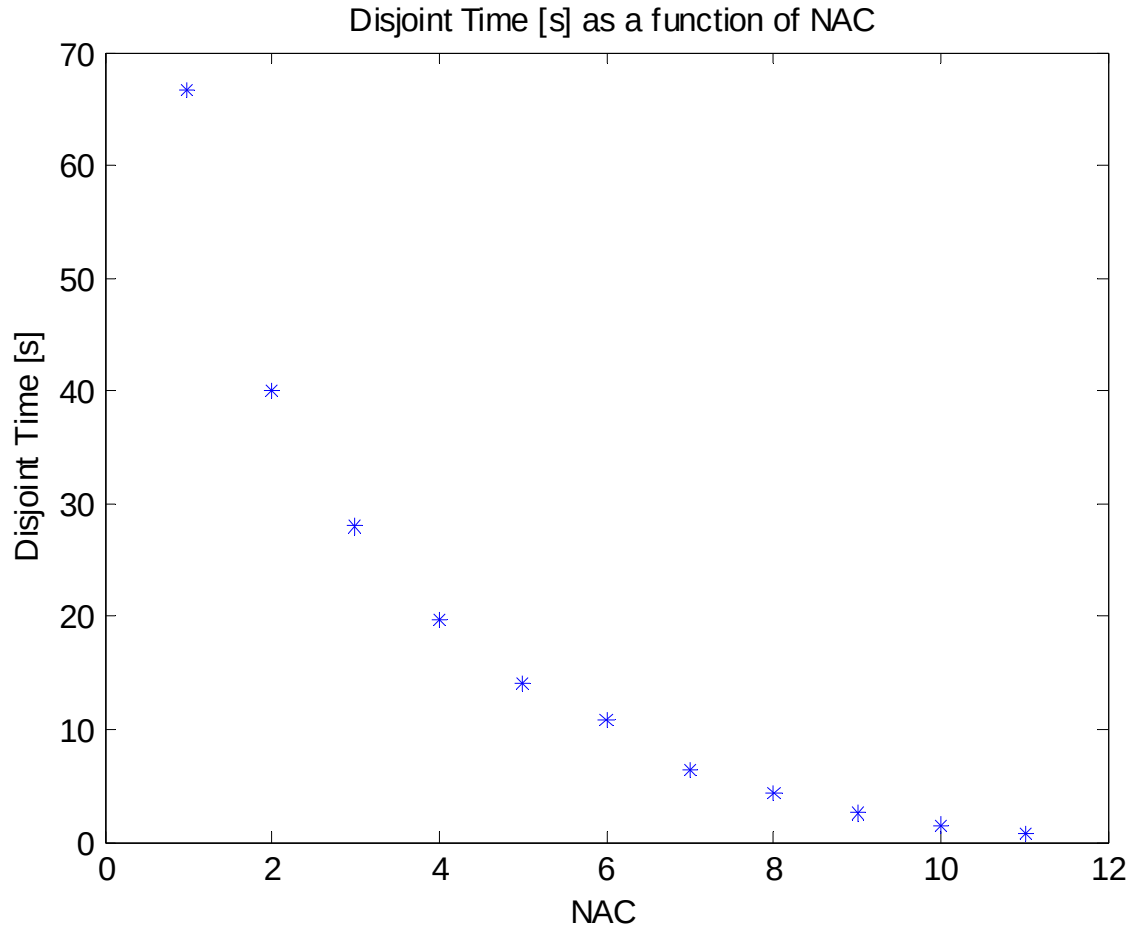
Run #1.1: NACp =10; aTurn =1g; Vel = 10:10:600kts



Run #1.1: NACp =11; aTurn =1g; Vel = 10:10:600kts

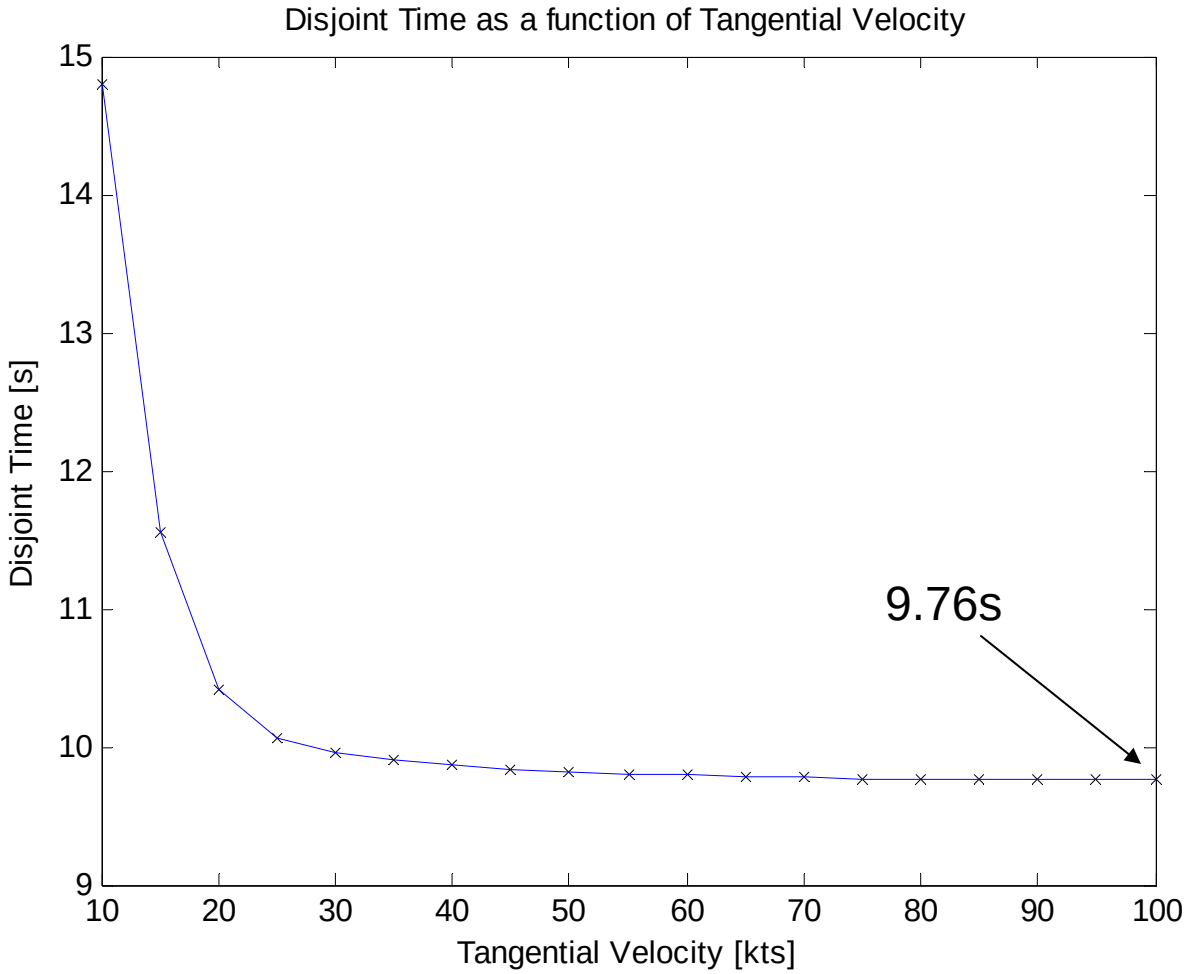


Summary – Disjoint Time vs. NAC

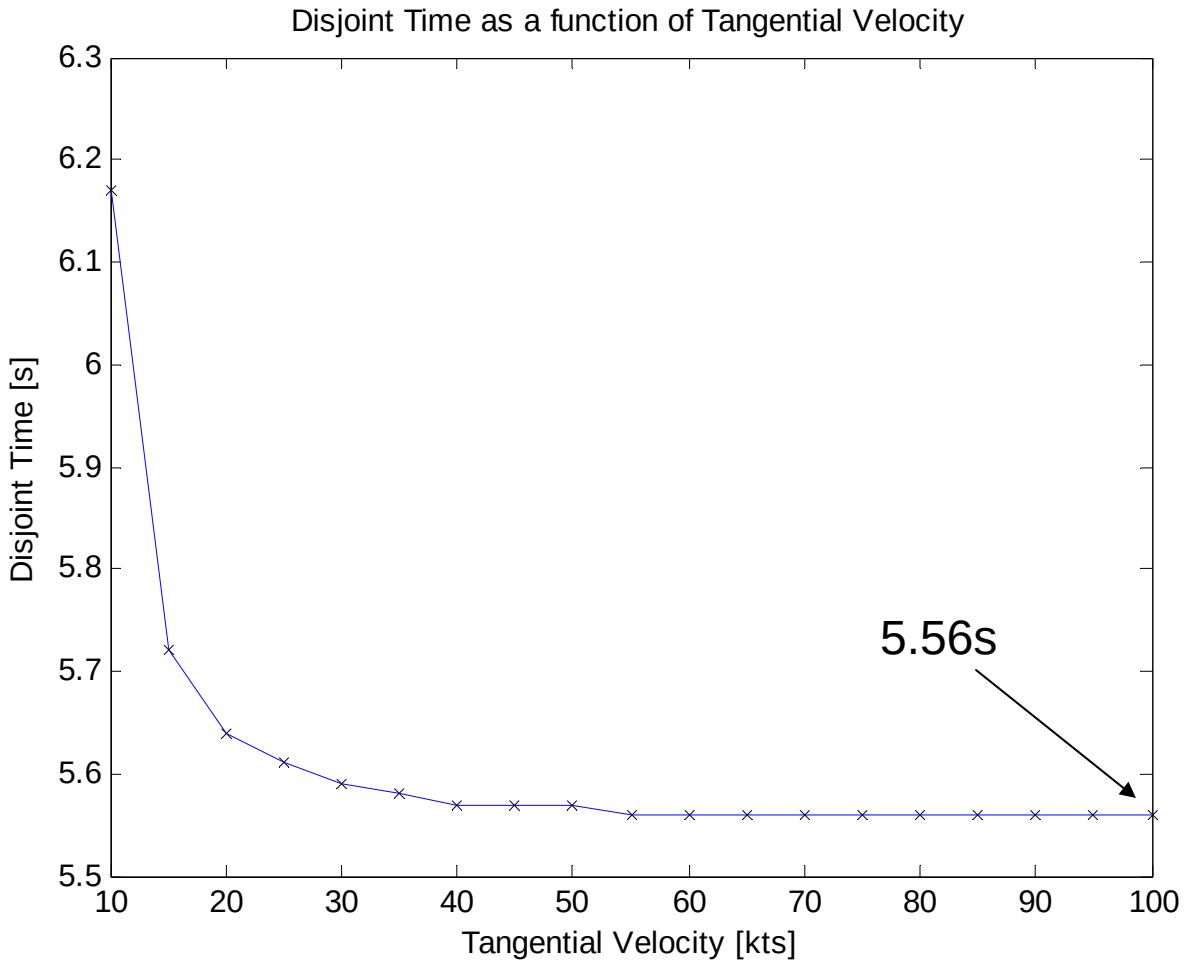


NAC	Disjoint Time [s]
1	66.8
2	40
3	28
4	19.7
5	14
6	10.9
7	6.4
8	4.35
9	2.477
10	1.431
11	0.7827

Run #2.1: NACp =8; aTurn =.2g; Vel = 10:5:100kts



Run #2.2: NACp =9; aTurn =.2g; Vel = 10:5:100kts



Status

- **Coast time dependent on:**
  - Target velocity
  - $NACp_{min}$ for application
- **How do we want to proceed?**